

SUPERFLUOUS HAIR

AND

THE MEANS OF REMOVING IT.

BY

BALMANNO SQUIRE, M.B. LOND.,

Surgeon to the British Hospital for Diseases of the Skin.



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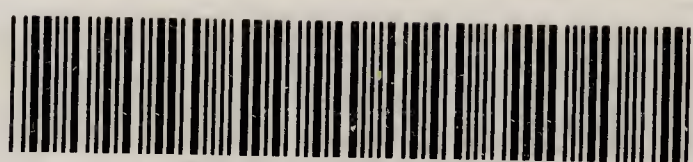
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INTRODUCTION.

The question, of what are the best methods of removing superfluous hair, has, in recent times, attracted some attention on the part of dermatologists, both in Europe and America ; so that the subject has been brought more definitely, than was lately the case, within the region of cutaneous surgery.

Nevertheless, considerable differences of opinion still exist, amongst authoritative writers on the subject, not only as to matters of detail, but even as to the admissibility of some of the methods that are in vogue.

I have thought that by publishing in a separate form a summary of what is known on the matter I might assist in paving the way to a further advance in the knowledge of the subject.

Some apology may perhaps be necessary for the seeming triviality of the subject. However, blemishes, which on any other part of the body are of but little importance, are apt to become, when they affect the face, matters of some moment. The condition in question is prone to locate itself specially on the face, and to occasion very often considerable disfigurement.

BALMANNO SQUIRE.

24, *Weymouth Street, Portland Place, W.*

May, 1893.

SUPERFLUOUS HAIR

AND THE MEANS OF REMOVING IT.



SUPERFLUOUS hair, or Hirsuteness, has received many titles, such as *Hypertrichosis*, *Hypertrichiasis*, *Polytrichia*, *Trichauxis*, *Hirsuties*, each of which means simply undue hairiness.

It is scarcely necessary to give a definition of this condition, if one can be content to give it so intelligible a name. However undue hairiness is a term employed when the growth of hair exceeds its usual limits; that is to say its limits as to the length of the hairs, the number of the hairs, and the thickness of the individual hairs.

As to the usual limits of surface (of the body) occupied by the hair, these are never exceeded. Hair never grows on parts of the body which are not usually hairy. For example undue hairiness is never present, even in the slightest degree, on the palms of the hands, or the soles of the feet, or on the backs of the last joints of any of the fingers or toes, or on the upper eyelids. In every person, whether he be unduly hairy or not, these surfaces remain always absolutely bald.

But, on any other portion of the surface of the

body, and indeed for a short distance within some of its orifices, namely the nostrils and the tubes of the ears, undue hairiness may present itself.

This happens because the whole of the surface of the body, excepting the palms, soles, last joints of the digits, and upper eyelids, is usually covered with hair: that is to say with short, fine, downy hair (*Lanugo*): except where, as on the head for example, hairs of longer and coarser growth exist. When, therefore, undue hairiness occurs on any part of the body, it is always simply a mere exaggeration of a pre-existing state of things. The downy hairs have taken on a monstrous development, that is all.

The most remarkable instances of undue hairiness are to be found in those individuals who, in infancy become gradually completely covered with hair, excepting as to the regions already named on which hair never grows. This condition which is extremely rare seems, from the few instances that have been observed, to be a hereditary peculiarity. It has been variously designated by different authors, *Hirsuties adnata*, *Hirsuties universalis*, *Hirsuties hæreditaria*; and the individuals thus affected have been termed *Homines pilosi*, and *Homines silvestres* (or *wild men of the woods*).

The most noted instances of universal undue hairiness are the Burmese family of Shevémaong; the Burmese child, Krao, whom I had the opportunity of examining a few years ago at the Westminster Aquarium in London, where the child was exhibited under the title of "the missing link!"; the hairy

family of Ambras; and the Russian 'dog-man' Andrian Jeftichjew, (Fig. 1) and his son. In each of these instances the usually bare surfaces of the body, but especially the face, were covered with a thick growth of hair; the face being completely covered with thick long hair, excepting only the red margin of the lips and the upper eyelids, so that the face resembled somewhat that of a Skye-terrier. In all of these cases the hair, growing on those portions of the body which are usually bare, was soft and fine in texture so as to resemble rather wool than ordinary hair. The hair was more abundant over the shoulders, back, and breast, than over the abdomen and limbs. The palms, soles, and last joints of the digits were absolutely bald.

In the family of Shevémaong the peculiarity lasted through three generations: the individuals affected being Shevémaong, his daughter Maphoon, and her son. (Fig. 2) However of Shevémaong's family, of four girls, only the youngest, Maphoon, (Fig. 3) exhibited the same peculiarity that he did; and of Maphoon's family, of two boys, the younger boy alone inherited his mother's hairiness. Feodor, the son of Andrian Jeftichjew, is another example of hereditary universal hairiness.

One curious anomaly accompanies this condition of universal hairiness, and that is a congenital deficiency of the teeth. For example Shevémaong never had any back teeth. At the age of thirty the only teeth that he possessed were, in the upper jaw the four incisors, and in the lower jaw the four incisors and

the left canine, and yet he had never lost any teeth. His daughter Maphoon presented the same anomaly, and, when grown up, had developed only the eight incisor teeth. In Andrian Jeftichjew the back teeth of the upper jaw had never made their appearance, although in the lower jaw the row of teeth was complete. In his son Feodor at the age of 3 years the upper jaw was toothless, and the lower jaw had only the four incisors.

It is to be remarked that universally hairy individuals are not born so. For instance Shevémaong and his hairy daughter and grandson were born with undue hairiness of the ears only. They gradually became universally hairy during their infancy and early childhood.

Although universal undue hairiness is unquestionably of very rare occurrence, a condition of more or less generalized undue hairiness is not extremely uncommon. This although most conspicuous in persons of dark hair, is met with also in fair-haired individuals. It occurs in both sexes, but attains its greatest development in adult males: whose face, breast, shoulders, back, and extensor surfaces of the limbs are, in a more or less interrupted manner, furnished with a luxuriant growth of unduly long hair. This condition which, from one point of view, may be regarded as differing only in degree from universal hirsuteness, is nevertheless quite distinct from that condition. It is not accompanied with deficiency of the teeth. It does not commence in early infancy, indeed it does not begin to shew itself



Fig. 1.—Andrian Jeftichjew (after Michelson), *vide* p. 5.



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until maturity is approached. Moreover the special and predominating complete hairiness of the face, which is so marked a phenomenon in both sexes in cases of universal hirsuteness, is here quite unapproached. Nevertheless the more or less generalized undue hairiness of adults very often presents itself as a family peculiarity, a tendency which is a characteristic also of universal hirsuteness.

In places where hair properly so-called usually grows, either on the head and face or on other parts of the body, one finds in adults of either sex considerable variations, both in the matter of thickness of growth, length of growth, and coarseness of texture. Thus in both sexes the hair of the head may attain quite a phenomenal degree of luxuriance, without being necessarily accompanied by the condition I have described as that of "more or less generalized undue hairiness," and the same holds good of all other portions of the body on which hair usually grows. The popular belief, that a strong growth of hair is an indication of great strength of body, is not altogether well justified. Many persons who are even remarkably strong present only a very moderate development of hair. On the other hand many individuals of quite feeble constitution are endowed with an unusual profusion of hair. The popular creed in this matter is probably founded, in some degree, on the assumption that an unusual growth of hair must be an evidence of unwonted energy, because the system has thereby shewn itself capable of producing a wanton excess of growth. Partly it is based

no doubt on an insufficient inference drawn from the fact, that the amount of hair proper to each individual attains its maximum development at the prime of life, that is to say during early adult age ; and, as a rule, is on the wane at the time of life when muscular activity begins to diminish. But, to some extent at least, the popular impression is influenced by a mistaken apprehension of the history of Samson and Delilah ; by the loose inference that, because Samson's strength depended on his hair, his hair must have depended on his strength. The history of Samson however by no means bears out such an inference. It is nowhere stated that he had an unusual growth of hair, nor that his strength was associated with "the seven locks of his head" in any other sense than that, in his special case, the retention of these locks was a symbol of the dedication of his strength to the service of God.

The variation, both as to quantity and length, of the hair of the head in different individuals is very considerable in either sex. In men, since their hair is always worn short these variations are less noticeable ; but, in those women who allow their hair to grow to its full length, the variations are even much more considerable than is commonly supposed. Fig. 4 represents a woman who came under my notice, and whose hair reached well-nigh down to her heels.

Those portions of the hair of the face which are common to the two sexes, namely the eyelashes and the eyebrows, are also subject to considerable variation. The eyelashes are in some persons short and

scanty, in others long and abundant. The eyebrows are in some persons so scanty as to be almost unnoticeable ; in other persons, even while they are yet young the eyebrows are strongly marked, thick-set, long, and even shaggy. In some individuals the eyebrows exceed their usual limits, not only in the matter of breadth but in the matter of length also, so that they meet in the middle line of the face, and become so perfectly fused that the individual may be said to have only one eyebrow.

Those portions of the hair of the face which are proper to the male sex, the whiskers beard and moustache, are capable, not only of presenting in different individuals very various degrees of general density and length, but also wide differences of another kind. Thus, in some men who have very full whiskers, the moustache is short scanty and silky. In some who are capable of growing a very strong beard, the whiskers will be almost absolutely deficient. Then again the customary region occupied by the specially masculine hair of the face is considerably exceeded in some instances. Thus, the region occupied by the whiskers is in some men advanced so considerably, that the cheek-bones are almost completely covered with dense hair-growth. In others the upper edge of the beard, instead of touching the red border of the lower lip at its centre only and receding widely from it on either side, will grow thickly up to the mouth along the entire length of the lower lip.

Of the variations above described the extremes, in

the direction of excess, constitute a species of undue hairiness which is distinct from the state already described as that of "more or less generalized undue hairiness."

Another kind of local undue hairiness is the premature development in children of either sex of hair on those portions of the body which as a rule are occupied by hair in the adult only. This in rare instances may occur at a very early age indeed, and has been met with even at the age of five or six years. This condition has received the name of *heterochronous Hirsuteness*, or untimely undue hairiness.

A still more striking kind of localized undue hairiness is the development of hair, on the faces of women, in the situations which, as a rule, are hair-covered in men only. As to this it must be stated that the *lanugo*, or fine downy hair, which covers nearly every part of the surface of the body both in men and in women is, in the case of every woman, more developed on the sides of the cheeks, on the chin, and on the upper lip, than it is elsewhere.

This accentuated "down," although invisible to the ordinary view is always clearly perceptible on close inspection and under a side-light.

In this country it is somewhat exceptional for it to attain a noticeable development; but in France more especially the south of France and in Spain, for example, this is by no means uncommon. Many young french and spanish women present at the age of 20 a quite obvious little moustache, which gradually acquires strength as they grow older, so at

the age of forty, or sometimes still earlier, it has attained very notable proportions.

Here at home one meets occasionally, although not so very often, with quite young women, on whose faces the usually invisible but always accentuated down has attained a quite obvious development, without however assuming the character of a beard or of whiskers.

In the female, as in the male, this kind of hirsuteness is by no means always uniformly distributed over the regions which are liable to it. In some it affects chiefly the cheeks, in some the upper lip, in some the chin. Although always most obvious in dark-haired women, this condition is by no means confined to them and is to be met with in blondes also. I have listened at a private concert to a well-known lady singer, a blonde who was furnished with a very obvious moustache. This lady although past her first youth was still a young woman. However she made her appearance on the platform endowed with a fair-haired moustache of greater amplitude than many men can contrive to grow at any period of their lives. This moustache was neatly trimmed, so that it was of somewhat formal cut.

In young women, who have sought my advice on account of superfluous growth of hair on the face, I have found that the growth has first become sufficiently marked to attract their attention usually at about the age of 24 years, but sometimes a year or two earlier. I have also noticed that, as a rule, in their case it is the part of the face corre-

sponding to the whiskers that is chiefly affected by the hairy growth. Sometimes it is the whisker-region and a portion of the beard-region, that is to say that part of the beard-region which is under the chin. Sometimes it is the whisker-region and the beard-region in general. Sometimes it is the whisker-, beard-, and moustache-regions. But in some instances it is the beard-, and moustache-regions only.

Allied to this condition, but in some respects quite distinct from it, is the hirsuteness of the face which affects women for the first time later in life. The facial hirsuteness of young women, it is true, is not an affair of youth only; it persists, and even gathers force with advancing years. But the variety now in question is that which affects middle-aged and elderly women who have not previously evinced any special tendency to facial hirsuteness. In the cases of this kind that have come under my care, I have noticed that it is the part of the face corresponding to the fore-part of the beard that is chiefly affected by the hirsuteness.

Sometimes it is the chin alone that is hairy, very often the chin and the upper lip, but scarcely ever the whisker-region. In this variety the hairs are spaced apart so as to be somewhat scanty in number, but they make up for their scantiness by their remarkable coarseness, so that they resemble rather tapering bristles than ordinary hairs.

Shakespeare, in his *Macbeth*, Act I. Scene III., makes an allusion to the very conspicuous character



Fig. 2.—Shevémaong and his family, *vide* p. 5.

of this condition. Banquo, almost immediately on his perceiving the witches, exclaims:—

“—— You should be women,
And yet your beards forbid me to interpret
That you are so.”

Witches, according to the popular belief, were always bearded. So, in “The Honest Man’s Fortune,” Act II. Scene I.,—

“—— and the women that
Come to us, for disguises must wear beards;
And that’s, they say, a token of a witch.”

However the latter quotation goes too far in more respects than one. The senile hairiness of the feminine chin never attains such a development as to actually simulate a man’s beard.

It will be noticed, from what has been said, that senile facial hirsuteness in women differs from the juvenile analogous state, not only in the matter of the age at which it first begins, but also as to the situation preferably occupied by it, and furthermore in the much more considerable coarseness and spacing apart of the individual hairs.

I have by way of distinction called this condition senile, and so in fact it often is. In many instances it begins to develop itself at or a little under the age of fifty. It has been sought from this circumstance to prove that its development is in some way dependent on the ‘change of life’: a view from which I must dissent, since I have met pretty often with instances of this special kind of hirsuteness in women

in whom it had commenced to shew itself at about the age of thirty-five, and even still earlier namely at the age of thirty. The age of fifty is the age at about which, sometimes earlier sometimes later, degenerations of various kinds are wont to commence. The 'change of life' is to be regarded as one of these degenerations. This special kind of hirsuteness, although it is an increase and not a loss, is also evidently in the nature of a degeneration. But the latter degeneration is not caused by the former. Both are alike due to one common cause, and that is age; not necessarily the age of the individual but the age, premature or other, of the organ affected in either case. It is well known that degenerations of the hair, for example those leading to loss of the hair or greyness of the hair, occur at very variable ages. The same observation holds good of teeth also. The phrase "Hair and teeth go for nothing," that is to say their degeneration is not a reliable indication of general decay, applies also to this particular kind of degeneration of the hair, which, as I have mentioned, sometimes occurs prematurely in women who are far from evincing signs of degeneration in any other respect.

Allied to senile facial hirsuteness of women, but differing from it in some respects, is the senile facial hirsuteness of men.

In some men, as old age advances on them, the beard, whiskers, and moustache, and the eyebrows as well, become coarser and denser. The hair within the nostrils and the ear tubes undergoes the same

change, so that tufts of hair project from the orifices of the nose and ears. Furthermore similar tufts sprout out on the lower part of the ears, and on the lower part of the back of the nose. As in the case of women, so in the case of men, this senile facial hirsuteness, although it usually begins at about the age of fifty, sometimes commences much earlier in life.

The most pronounced cases of senile facial hirsuteness, in either sex, are those in which the patient, as often happens, has attempted the cure of the condition by repeatedly pulling out the offending hairs. This procedure has invariably the effect of causing the hairs, as soon as they are reproduced, as they always quickly are, to grow, after each plucking out, longer and coarser than they were before. I have seen quite astonishing developments of hair, on the chins chiefly, and, in a somewhat less degree, on the upper lips of middle-aged and of elderly women, who have told me that they had perseveringly adopted this plan; and who have informed me that the growth, which had continued moderate before this interference, had taken on a fairly rapid increase very soon after. In such instances I have seen hair which, on the chin, was quite three or four inches long; and although it did not simulate a man's beard such as we know it in this country, nevertheless, as to quantity and coarseness if not in length, it bore a not very distant resemblance to the coarse and somewhat scanty hairs which constitute the beard of a Chinaman. Two or three years ago I was consulted by a gentleman, aged 41, on

account of a thick set and very odd looking tuft of dark hair which occupied the lower half of the back of his nose. The hair of this tuft was nearly a quarter of an inch long, so that the tuft had quite a tooth-brush-like appearance. He informed me that the hair on his nose, before he began to interfere with it, was not so pronounced as to attract any great attention: but that, disliking the appearance of it, he had assiduously plucked it out again and again: whereupon, in the space of not more than four months, it had arrived at the condition in which he shewed it to me.

The Facial hirsuteness of women, even when it is somewhat exceptionally developed, is not wont to bear more than quite a distant resemblance to the hair on the face of a man. Nevertheless, in some rare instances, the resemblance is complete. These quite phenomenal cases are always examples of early, never of senile, hirsuteness. The so-called "bearded women" *par excellence* do not acquire their beards in later life. On the contrary this particular condition is a congenital one, that is to say evinces itself, in a very faint degree, even at birth, or within the first few months of infant life. It gradually becomes more pronounced as the individual progresses from infancy to adult life, and it attains complete development at the time the body arrives at full growth. I have seen three examples of bearded women, in each of whom the whiskers, beard, and moustache were completely developed. One of these was Julia Pastrana (Fig. 5), whom I saw many years ago at the Cirque d'Été,

(then the Cirque Napoléon), in Paris, where she danced. Her hair was perfectly black. Besides her whiskers and moustache, she presented a very full, long, pointed, goat-like beard. I was not prepared for this part of the programme, and when she appeared dressed in ballet costume, and commenced a *pas seul* the effect was, as may be supposed revolting in the extreme. The hair of her head was arranged in feminine fashion, according to the mode then in vogue, and her dress was white. The contrast offered to these surroundings by her swart beard, and swarthy complexion, was weird and even horrid. It is said that Julia Pastrana was furnished with a double row of teeth, and that the somewhat gorilla-like appearance of her face was, in part, due to this circumstance. Another account however imputes to her the opposite condition, namely that she was the subject of congenital deficiency of several of her teeth. The second of the three examples that I have seen I chanced upon equally unexpectedly. I saw her also in Paris, but some years after I had seen Julia Pastrana. She was serving behind a bar, at one of the theatres, with two other barmaids, all of them dressed in elaborate evening costume. At first I took her to be some young man masquerading in feminine dress, but her features, manner, gestures, and voice were obviously feminine. She was apparently about 25 years old, and the hair on her face (whiskers, moustache, and beard,) was precisely similar to that of a man of her apparent age. The hair of this young woman was black. The third

bearded woman that I have met with (Fig. 6) was recently in this country. I have, in my practice, met with two young women whose whiskers were decidedly bushy, although not voluminous. One of these had reddish-brown hair. One of the most carefully recorded examples of the bearded woman is that described by Dr. Duhring of Philadelphia: namely the case of Mrs. V—— M——. (Fig. 7) She was born in the town of Wilcox, Elk Co., Pennsylvania, in 1854. At the time when her portrait, which I copy, was taken she was twenty-three years old. The description of her, from which I borrow extracts, was written at the same time. She was married at the age of seventeen and a half and has had two children, one a boy, the other a girl. They died within a short time of each other, one at the age of four, the other at the age of two years. Her parents are both living. [It is to be remembered that the statements here related were made in the year 1877.] She has two brothers, one aged twenty, the other eleven, and one sister aged nine. Neither of her grandparents, of her parents, of her children, or of her brothers manifested any unusual growth of hair, nor did her sister; nor is any one in the family, or among the relatives, known to have shewn any tendency to the development of hairy growths.

Throughout her childhood she was weakly, was frail, spare, and delicate, and ailed from time to time with various complaints. However from the age of fourteen, at which time she arrived at maturity, her



Fig. 3.—Maphoon, *vide* p. 5.

general health improved, and in the course of two or three years she became quite hearty. Her figure soon became well developed, that is to say averagely so.

Her voice has always been feminine. Her character is strictly womanly, all her tastes being remarkably feminine and domestic. She possesses a quiet, composed manner, and is reserved, taciturn, and modest in disposition. Her facial expression, without being melancholic, is habitually thoughtful.

She is a woman of small stature, measuring in height not more than five feet one or two inches, and of slender frame, but well formed and proportioned. Her head is of medium size, rounded and shapely. The face is a refined one, ovalish in form, with a moderately high forehead, a straight, delicately chiselled nose, small, pleasing mouth, with thin lips, and a retiring chin. The hair is black, the eyes dark brown. The complexion is a clear brunette, the cheeks shewing considerable colour. The skin of the face is remarkably soft and smooth, and her complexion is singularly clear. The hands and feet, fingers and toes, are small and womanly, and possess no more hair than is often met with in women.

The hair of her head is comparatively short. When permitted to hang loose, it reaches only to her shoulders, and is quite thin. It is black, and is of fine texture. The hair of the head is distinct, and of another kind, from that of the whisker. The eyebrows and eyelashes are full, but by no means heavy.

The whiskers, moustache, and beard involve exactly the same regions as in the male. The

hairs of the moustache are about a half inch long. Those of the whisker and beard are four or five inches in length, curly, abundant and thickly set, of fine quality, but not soft or silky. Viewed in its entirety the beard, which is black, would be termed full, thick and handsome.

Extending from shoulder to shoulder, over the back, is a thinly diffused and comparatively scanty hairiness, which occupies a space about as wide as the palm. The hairs of this patch are thin, soft, black and about an inch long. The whole of the back,* from the shoulder blades downwards, is furnished, but still more scantily so, with hair of the same kind. At the upper part of the chest, just below the collar bones, are noticed a few straggling, fine hairs, but they are not sufficiently numerous to attract attention. The limbs are slightly hairy, the hairs being long and thin, but not as numerous nor as strong as usually met with upon men. Elsewhere she presents no deviation from the ordinary condition.

Her teeth are in a remarkably fine state of preservation, and are perfect as to form, number and order.

At birth, so her parents say, she had a very light, whitish down over the regions of the face now occupied by hair. A few months later this down had grown stronger. At the age of three years the sides of the cheeks presented a considerable quantity of light flaxen down. At about the age of ten the hair of the face began to grow more vigorously, the

cheeks, chin and upper portion of the neck showing an abundant production. The hair upon the upper lip now first manifested itself in a notable manner, and in a short time became brownish in colour. At sixteen another start in the growth of the hair of the face took place, the hair becoming more abundant, longer, stouter, and darker in colour. At eighteen it had reached its greatest development,—the condition in which it now exists. It has never been cut, shaved, or otherwise interfered with. The comparatively scanty hair on the shoulders and back began to shew itself at about the age of fourteen.

As a child she was extremely shy, and never exhibited any signs of precocity. There was no suggestion, put forward in this instance, of the condition being due to any “maternal impression.”

It will be noticed that, in this case, the condition was not hereditary, that it was not accompanied by any other masculine characteristics whether of build or of disposition, that it was not associated with exceptional strength of body, that there was no deficiency of the teeth such as happens in cases of universal hirsuteness, and that, although undue hairiness was present on the back, this was altogether insignificant in comparison with that upon the face.

Various other examples of bearded women have been recorded by different observers.

Most writers impute to women, who are the subjects of undue hairiness, that they incline also in other respects to the masculine type, that they have deep voices and bony frames, in short that they are

viragos. It has also been said that feminine hirsuteness is specially associated with sterility. I cannot say that my own observations altogether support either of these views. It is natural to suppose that women, who somewhat resemble men in one respect, ought to resemble them more or less in other respects also, but I have not found that this necessarily follows. I have met with *viragos*, and I have met with hirsute women; but I have not found that, as a rule, the *viragos* were hirsute, nor that the hirsute women were as a rule *viragos*. On the contrary the majority of the hirsute women, that I have met with, have not been wanting in any degree in womanliness, whether in the matter of form, of feature, of disposition, or of voice. I have, it is true, met with two or three *viragos* who have presented the juvenile variety of hirsuteness; and I have occasionally met with *viragos* who have exhibited the senile variety of facial undue hairiness. So that I have as little reason for supposing that *viragos* are specially exempt from the condition, as I have for believing that they are particularly prone to it. I have so often seen mothers of large families exhibit marked hairiness of the upper lip and chin, that I cannot associate, at least the senile variety, in any special manner with sterility.

However, undue facial hairiness, whether in women or in men, is sometimes due to a condition quite distinct from any of the above-described varieties,—namely to the presence, on some part of the face, of the so-called *Nævus pilosus*, or hairy mole, or hairy

Birth-mark. In such cases the unwonted hair-growth, which dates from birth or becomes developed within the first few months of infancy, is situated on a more or less deeply pigmented patch of skin. This brown patch of skin may be either perfectly flat with the neighbouring surface, or more or less thickened so as, in some cases, to project very considerably above the level of the surrounding skin. Sometimes the whole of the pigmented patch of skin is hair-covered; but in other instances only a portion of it is occupied by the hairy growth, the rest of it being covered only by the almost invisible down, or lanugo, which is common to it and the neighbouring skin. The size of the hairy mole may vary very notably. It may be no larger than a hemp seed, or it may be so large as to occupy even the greater part of the face, or it may cover the greater part of the trunk and of one or both of the arms, or it may extend over the lower half of the trunk and nearly the whole of the thighs. There may be but one mole, or the face may be thickly sprinkled over with moles to the number of even fifty or more, or even a still larger surface of the body may be thus sprinkled over. Hairy moles may occupy the usually hairless, or the usually hair covered parts of the face. For example, they may occupy some part or parts of either or both of the eyebrows, in such case producing a deformity of the eyebrow. In the male, a hairy mole may be present at some part of the whisker-, moustache-, or beard-covered part of the face; in such case giving rise to a more or less conspicuous peculiarity, owing to the

hair of the mole differing in texture, in denseness of growth, in coarseness, and sometimes in tint also, from the surrounding hair.

The colour of the pigmented patch of skin may vary from a light yellowish brown to a black-brown. Even on the same mole, if it be of any notable extent, the tint of the brown colouration may vary very greatly. In most cases the margin of the mole is quite distinctly defined. The colour of the mole rarely fades by insensible gradations into that of the surrounding skin. It has been said, of hairy moles, that one of their characteristics is that they exhibit bilateral symmetry. This is true of them to a certain extent. They certainly present this property in, at all events, a greater degree than the vascular birth-marks, (the so-called 'port-wine-marks,') but more often they are unilateral or, if present in the same situation on either of the two halves of the body, are in such case, as a rule, very much more extensive on the one side of the body than on the other.

When a very extensive mole exists on any part of the body, it is often found associated with several very much smaller moles, which as a rule are scattered about its vicinity. These *satellite-moles*, to the number of half a dozen or a dozen or so, may be placed in the immediate neighbourhood of the large mole, or may be distributed somewhat more widely apart from it. In some cases, however, when a very extensive mole exists on the trunk, the *satellite-moles* may be sprinkled pretty freely over the whole of the rest of the skin: occupying,



Fig. 4.—Miss M——, *vide* p. 8.

not only the remainder of the trunk, but also the face, neck and limbs, including the backs of the hands and of the feet, so that the individual thus affected presents a strangely spotted appearance all over. When the satellite-moles are but few in number, (half a dozen or so,) they are apt to be very small and of uniform size; but when they are more numerous their size varies somewhat notably. In cases where they are universally distributed over the skin they vary in size still more, so that the difference, as to area, between the smallest and the largest is very wide indeed; but, nevertheless, the largest of the supplementary moles is always of very insignificant dimensions as compared with the main or chief mole.

Hairy moles, whether they be large or small, single or numerous, have always some history attached to them. These histories, as to one point, have no variation. The mother of the mole-marked individual, has invariably been subject to some mental emotion, of a more or less odd kind, within a few months before his birth. These so-called "maternal impressions" vary as to their nature. In some instances, the mother has been suddenly frightened by something, so that the "impression" is in the nature of a mental shock. In other instances, she has become much impressed by the sight of some unfamiliar object, without necessarily having been at all frightened by it. In some cases, she has longed for some prohibited article of diet. In all cases, the hairy mole, either by its shape or its situation, as well as by its general

aspect, presents a rude pictorial record of the incident.

For example a man, who bore, on the skin covering his right cheek-bone, a brown mole of oval shape covered with short, but thickset, dark-brown, silky hair informed me, scarcely to my surprise, that his mother had been frightened by a mouse, and that this his mole was the presentment of the back of that mouse. The mole, which measures about an inch and a half in length by three quarters of an inch in breadth, certainly did look "very like a" *mousé*.

But, as I have already explained, history, of *this* kind at least, does not always repeat itself. For instance the young woman, whose portrait is shewn in Fig. 8, had a somewhat different tale to tell. Her mother was a laundress, and also let lodgings to two or three artisans. One day when the men came in to their dinner, which was placed ready for them, they found the cat on the table eating some of their meat. One of them, cruelly, flung the cat into a 'copper' full of hot water. The scalded animal rushed upstairs into the room where the mother was. She, distracted at the condition in which her pet suddenly presented itself, raised her left hand to the side of her face in an attitude of horror. While she was in this attitude, her hand covered her left ear and the adjacent part of her left cheek. Accordingly the mole (which involves the patient's left ear and the contiguous portion of her left cheek,) represents the position of the hand on her mother's cheek; and indeed represents also, so far as its situation permits,

the shape of her mother's hand. Those portions of the mole, which are comparatively devoid of hair, represent portions of the cat's skin from which the hair was supposed to have been scalded off; whereas the more hirsute whisker-like portion of the mole represents a part of the cat's skin which had escaped immersion, or which at all events had been less severely scalded.

The story of the young woman, represented in Fig. 9, is somewhat different in character from either of the tales above related. Shortly before her birth her father and mother, who at that time were in one of the western districts of Africa, took a drive out through the forest. A lion crossed their path, and attacked and killed her father. Her mother was rescued by some negroes who were hunting this lion. Accordingly the patient was born with a condition of face, which, certainly, taking into account its tawny colour, the prominent and corrugated appearance of the lower part of the forehead, and the long hair which hangs from the side of the face, gives her a somewhat leonine appearance, mane included.

I relate these three stories, somewhat at length, because they exemplify the minute detail with which the authenticity of such histories is commonly fortified. Story number two, for example, is particularly complete. Nothing, in either the general character, the shape, or the situation of the hairy mole, is left unaccounted for. As the tale unwinds itself every thing is made clear. It is almost impossible to cavil at an account so circumstantial, narrated by

the patient herself and obviously told in all good faith.

One cannot help noticing however that, in the first case the shape, as well as the appearance of the mole, represented the mouse; that in the second case the outline of the mole, which in no degree resembled that of a cat, was shaped by the uplifted hand; whereas in the third case it was the patient herself, and not the outline of the mole, that resembled the lion. I have heard many people relate stories in no way relating to moles; stories in which, as I am persuaded, they thoroughly believed; and which referred to circumstances which concerned them as closely as moles might; and yet I have afterwards come to know, as surely (I might say) as I know anything, that these stories have been without any foundation whatever in actual fact. I have listened to the histories of many moles, but I have never believed one of them. I touch on the matter here because these histories are so generally, I will not say universally, believed in by the public of all classes, that they are almost part and parcel of the hairy mole. Moreover, it is impossible to doubt that a considerable section of the medical fraternity accept these histories as true, if perhaps somewhat strange. The various communications bearing on the subject, which from time to time appear in the medical journals, shew this forth pretty clearly. The question, as to whether the popular belief is justified or not, is absolutely beyond the region of debate. One cannot however avoid speculating on the possible cause of a belief so generally

entertained, and so amply upheld by circumstantial accounts which are added to in thousands every year. I think the reason may perhaps be stated, by quoting a definition of mankind propounded by a german philosopher, who defined man as "a cause-seeking animal." People who have moles are unable to let the matter rest there. It is not choice, but necessity, that impels them to seek a cause, and to seek till, as they believe, they have found one.

The most remarkable example of the hairy mole, that I have met with, is that pourtrayed in Fig. 9. It serves to illustrate several of the features which characterize extensive hairy moles. I propose therefore to describe it here in detail. The subject of it, a woman, was 25 years old at the time when the annexed portrait of her was taken. She is married and has two children. She is the only child of her parents. Neither of her parents, nor of her children, have been affected with any peculiarity such as hers. She tells a tale, which I have already related, as to her mother having been frightened by a lion.

In order to convey an accurate idea of the situation and extent of the mole, it will be necessary that I should describe the meanderings of its circumference.

The mole is limited ; above, by the fore margin of the scalp. On its left side the mole is limited, on the forehead, by a line descending vertically from the fore margin of the scalp to the middle of the left eyebrow. The margin of the mole then slants, downwards and inwards, over the upper left eyelid, to a point just on the inner side of the inner left canthus. Thence it

descends slantingly, downwards and outwards, over the lower left eyelid, to as far outwards as a line dropped vertically from the outer end of the left eyebrow. Then the margin descends vertically, down the left cheek, for about an inch and a half; and then curves, downwards and forwards, to a little below the left angle of the mouth, which it quite misses; and then ascends to the lower end of the cleft behind the left nostril. From here it travels along the edge of the left nostril, and along the left margin of the columella, thus reaching the mesian line.

From the above description it will be obvious that, on the left side of the face, the margin of the mole quite clears the edges of the left eyelids, and clears also the inner canthus; it also quite clears the red lips and the left angle of the mouth, as well as the orifice of the left nostril.

On the right side of the face the margin of the mole pursues an altogether different course. Starting from a point immediately below the left side of the columella, it descends slantingly down the middle part of the upper lip; that is to say, it travels in an almost straight line downwards, and slightly to the right, so as to almost reach the margin of the red lip, just to the right of the lower end of the central vertical depression on the upper lip. It then runs along the right half of the margin of the upper red lip, but quite clearing the red lip, although (for the outer part of the lip) almost touching the red lip. After arriving at the right commissure of the lips it still runs on, quite horizontally, until it arrives at a



Fig. 5.—Julia Pastrana (after König), *vide* p. 16.

point half an inch away from, *i.e.* to the outside of, the right commissure of the lips. From this point it descends almost vertically to the lower margin of the lower jaw. It then, turning backwards, follows the lower edge of the right lower jaw, quite accurately, as far back as the angle of the jaw; and then, ascending, follows quite accurately the posterior edge of the right ramus of the jaw; and then goes in front of the pinna of the ear, quite clearing the pinna, until it joins the fore margin of the scalp.

It will be clear, from this account of the shape and situation of the mole, that it fails to exhibit in any reasonable degree the character of bilateral symmetry. I draw attention to this circumstance, because it has been stated, on good authority, that large moles are wont to exhibit bilateral symmetry. My experience of them however is that they never present this character.

As to the tumefied parts of the mole: These are the right eyebrow-region, the glabella-region, and the inner half only of the left eyebrow-region; also the right lower eyelid, and a part of the right cheek, namely the part which corresponds to the malar bone; furthermore the alæ and tip of the nose, and the right half of the upper lip; and lastly there is a fairly large tubercule which is situated on the middle of the left cheek.

The eyebrow-regions and the glabella-region are more tumefied than any other part occupied by the mole, excepting only the right ala of the nose. I employ the words eyebrow-region and glabella-region, instead of eyebrow and glabella, because in this woman

the right eyebrow measures an inch across vertically, and the left eyebrow at least three quarters of an inch, the area of the glabella also being correspondingly enlarged vertically. On either side of the glabella is a *very* deep cleft or sulcus $\frac{3}{8}$ inch i.e. nearly half an inch in depth. There are also, namely on the right eyebrow, some minor, but nevertheless fairly deep, clefts all of them in a more or less vertical direction. The eyebrows and glabella, but more especially the right eyebrow, bag somewhat downwards owing to their increased weight, the right eyebrow looking as if it weighed heavily on the right upper eyelid. It is to this corrugated and overhanging appearance of the brow that the leonine aspect of the face is mainly due. The surface of the tumefied eyebrows and glabella is extremely rugged, owing to the presence of numerous minute but deep pits, which are the transferred orifices of the follicles. From the centre of each of these pits a hair issues. The right eyebrow is much more deeply pitted than the left one, as well as broader, more swollen and more 'bagging.'

The tumefaction which is situated on the right lower eyelid, and on the right cheek over the malar bone, is a notably elevated but comparatively smooth (puffy-looking) swelling.

As to the nose, the tumefaction is greatest on the right ala, the surface of which is minutely but very deep pitted, the pits corresponding to the orifices of the follicles. From the centre of each of these pits there issues a minute, elongated, dark-coloured, hard, sebaceous plug, resembling the short stump of a hard

dark-coloured bristle. The tumefaction of the right ala shades off to less tumefaction on the tip of the nose, and is quite moderate in degree on the left wing of the nose. The right side of the nose is not only much more swollen and more deeply pitted, it also, by reason of its greater weight, hangs down lower than the left side of the nose.

The affected part of the upper lip, that is to say the right side of it, is also swollen and pitted, namely to about the same degree as the left eyebrow; therefore not nearly so much so as the right eyebrow.

The tubercle, or elevation, on the middle of the left cheek is smooth and puffy in appearance.

All the rest of the mole is fairly smooth and flat, and very slightly elevated, if at all. It is true however that on the lower half of the front of the cheeks, the mole is rougher than it is, for example, on the upper part of the cheeks. This roughness may be described as an orange-rind-roughness with slight convoluted corrugation.

From this statement, as to the swellings on the mole, it will be plain that, not only is the mole much more extensively spread on the right than on the left side of the face, but also that its swellings, even those which occupy corresponding situations on the two halves of the face, are much more developed on the right than on the left side.

As to the hairy parts of the mole, on the forehead the mole is covered with short, soft, but coloured hairs about one eighth of an inch long.

On the left cheek, the mole is covered at the upper

part of the patch with down, just like that on the forehead but somewhat longer, namely a quarter of an inch long. However, at its lower part, this patch is covered with veritable hair, which may be said to occupy the lower third of the patch. The long hair, growing on the lower part of the patch, is from one inch to one and a half inches long. It grows quite as thickly as the hair of her head. It resembles the hair of her head in every way, only that it is *slightly* lighter in tone, the colour being otherwise the same as that of the hair of her head. The part of the patch, thus occupied by long hair, forms a sort of crescent, the concavity of which looks upwards. The outer horn of this crescent extends to the outer-upper corner of the patch, while the inner horn extends right up to the upper end of the right ala-cleft. Of this left cheek patch the lower part, from which coarse long hair grows, cannot be distinguished from the upper part, from which merely soft short coloured hair grows, excepting only by the stronger growth of hair. The colour of the patch, the flatness and smoothness of the patch are the same in its upper as in its lower part.

On the right cheek, the upper margin of the whisker (viewed from the front of the face) follows, in many respects, the same line as that followed by the upper limit of the tuft of long hair on the left cheek. That is to say it is curved, the concavity being upwards. The curve starts, on its inner side, from the upper end of the cleft of the right ala of the nose; and, after dipping well downwards, goes up with an irregular waviness to join the outer end of the right eyebrow,

The lower, and hinder margins of the whisker correspond with the lower, and hinder margins of the mole on the right side of the face. Consequently, not only is the right cheek provided with an ample whisker, but the whole of the right half of the upper lip is furnished with a thick and coarse moustache. The whisker is quite as large as that of a fairly hirsute man, who has allowed his whisker to grow fully. Much of the hair of this whisker measures as long as seven inches. Moreover, its growth is considerably denser than that of the whiskers of most men. The growth is as thick as that on the back of a long haired and straight haired dog, for example a scotch Collie-dog. This whisker is streaked with many grey hairs ; so also is the hair of the head, although the woman states that she is only twenty five years old.

The hairs on the eyebrow regions are stiff, bristly and short, but she says that she never cuts or shaves her eyebrows. She is however in the habit of clipping her one-sided moustache, as may be noticed in the illustration, this she does for her greater convenience in the matter of eating and drinking.

On the lower half of the front part of her nose are numerous, fairly stout and deeply coloured bristly hairs, a quarter of an inch long.

As to the satellite moles, in addition to the large mole, which occupies so considerable a portion of the woman's face, there are eight satellite moles. These are situated near the outer and lower margins of the left-cheek patch. From each of these satellite moles, stiff, bristly hairs grow. These satellite moles form

a sort of constellation on the left side of the face, and may be spoken of as arranged in two rows, the one row very near the large mole-patch, and the other row placed somewhat further off.

At a front view, the woman's face seems "all of a slant," owing partly to the swollen right eyebrow being depressed by its own weight, partly to the swollen right ala of the nose being depressed by *its* weight, and partly to the swollen right half of the upper lip overlapping the right half of the lower lip, i.e. slantingly so.

The right eye has suffered considerably owing to the mole. Inasmuch as the right eye is completely surrounded by one of the tumefied parts of the mole, the swelling of the surrounding skin tilts the edges of the eyelids inwards, producing *entropion*—inversion of the eyelashes. The irritation produced by the inverted eyelashes, has caused considerable congestion of the conjunctiva, and opacity of the cornea, so that she cannot see at all with that eye.

On her forehead, several attempts have been made in her infancy to obliterate the mark. These attempts have left a number of scars there.

From the foregoing description, it will be noticed that although there is an absence of correspondence, on the two sides of the face, as to the actual plan or map of the mole, still there is a very marked correspondence of another kind. Where the mole is present, on precisely the same spots, on the two halves of the face, the left part of the mole corresponds in character very closely to the right part. For example,



Fig. 6.—Annie J——, *vide* p. 18.

that part of the mole, which on the left side of the face is covered with long hair, is matched in this respect very accurately by the corresponding part of the mole on the right side of the face. Similarly, the tumefied parts of the mole (eyebrow and ala nasi), on the left side, are matched on the right side of the face. Also the smooth parts of the mole, (those which are neither tumefied nor coarsely hirsute,) on the left side, are matched on the right side. If there is not a long whisker on the left, as there is on the right, side; it is only because this is prevented, by the limitation of the plan or map of the mole, on the left side of the face.

Since some moles are hairy, some not so, and others only hairy at parts, it may perhaps be thought curious that the long hair on this woman's mole should happen to be developed exactly in the position of the masculine whiskers and moustache. It may seem even still more surprising that, in these situations, the hair should exhibit a growth, which, even for the hair of a mole, is most exceptional both as regards denseness and length; so as to give rise to what is in fact a veritable whisker and moustache.

However, it must be remembered that the *lanugo*, or 'down,' on a woman's face is always more accentuated, although not noticeably so, in the situations which, in a man's face, are occupied by a coarse growth of hair. That this accentuated *lanugo* is capable, on occasion, of undergoing a portentous development, we already know. Sometimes this development is shared by the *lanugo* of the rest of

the face as, for example, in the case of the Burmese woman Maphoon; but in other cases it is not so, for example Mrs. V—— M——, and other ‘bearded women.’ In this particular instance, as in another to which I shall advert, the occurrence of an extensive mole on the face seems to have evoked, so far as the limits of the mole permit, a kind of hirsuteness closely resembling that of the so-called “bearded women.”

The satellite moles, which in this instance are all of them grouped together near to the left side of the chief mole, occupy a region which corresponds to that occupied, on the right side of the face, by the whisker. Now all of these satellite moles are furnished with coarse long hairs. It may be assumed therefore that, if the chief mole had extended as completely over the left as it has over the right side of the face, it would have evoked as large a whisker on the left as it has on the right side. It is moreover reasonable to conclude that, if the mole had spread itself over the chin, the woman would have been furnished with a full beard.

It is noteworthy in this case that, over the lower half of the front part of the nose, the mole has evoked a growth of hair such as is special to the senile facial hirsuteness of men. A similar tuft may be seen, over the lower half of the front of the nose, in the portrait of Julia Pastrana (Fig. 5).

In another instance, which I have here figured, of extensive hairy mole affecting a woman’s face, the same phenomenon is to be seen as in the preceding case; that is to say, a whisker has been evoked in

precisely the proper situation for a whisker. I have already related the girl's tale, of her mother having been shocked at the sight of her pet cat who had been cruelly scalded. The mole, which is entirely restricted to the left side of the face, involves the left ear and the neighbouring portion of the left cheek. It will be seen, from the illustration (Fig. 8), that the left ear is in consequence considerably enlarged and distorted; and it will be remarked that, although the lanugo of the mole-region is abnormally developed over the whole extent of the mole, here and there to even a quite noticeable degree, nevertheless the occurrence of coarse long dark hair is strictly confined within the limits proper to a whisker. The girl was eighteen years old at the time the illustration was taken. She stated that her mother was six weeks advanced in gestation at the time of the shock.

Another kind of localized undue hairiness is that which sometimes occurs on the lumbar and sacral regions, and is in some instances associated with spina bifida.

Then again, localized undue hairiness is capable of being produced by certain appreciable causes. Thus, long-continued irritation of a limited region of skin is capable of originating this condition. For instance the prolonged use of irritating applications to a circumscribed portion of the skin will sometimes give rise to an undue growth of hair on the irritated surface. Similarly, chronic ulcers of the leg occasionally become in time surrounded by an increased growth of hair. It has been stated that, after gun-

shot injuries of any of the cutaneous nerves, the neighbouring skin becomes the seat of an undue growth of hair, but the evidence on this point is somewhat conflicting.

As to the causes of undue hairiness, long continued irritation of a limited portion of the skin has just been mentioned as a cause of localized hirsuteness. Universal hirsuteness, as has already been stated, is apt to become a hereditary condition. The more or less generalized undue hairiness of adults has been duly described, above, as very often presenting itself as a family peculiarity. It has, in turn, been explained that great strength of body cannot be regarded as a cause of hirsuteness.

The influence of race is decidedly a factor in determining the degree of hirsuteness of an individual. For example, one may instance the scantiness of the hair of the face in Chinamen, and the commonness of moustaches in the women of Spain, of the south of France, and of Austria, as compared with the women of this country.

The age of an individual exercises a considerable influence on his hirsuteness. For example the development of hair on the body, and in the male on the face also, as maturity is attained: the more luxuriant growth of the hair of the head during the prime of life: the occurrence of senile facial hirsuteness in men and in women. In precocious children the normal development of the hair-system takes place at a much earlier age than in others.

It has been sought to give an explanation of the

occurrence of hirsuteness, by attributing this condition to a lesion, or to a disturbance of some kind, of the nervous system. Thus, it has been pointed out that in the case of universal hirsuteness, as exemplified for instance in the Burmese hairy family, the region of skin which is most strikingly affected is that supplied by the branches of the Trigemini pair of cranial nerves. These nerves, as I may recall, supply the skin of the fore part of the head, of the face, and of the ear, as well as the teeth of both the upper and the lower jaw. So also in the case of the large hairy moles, which occupy the greater part of the trunk; it has been claimed that very often the upper margin of these moles, and sometimes their lower margin also, correspond to the course of cutaneous nerves.

As to the theory of maternal impressions being concerned in the causation of hairy moles, I have already explained my disbelief in it.

There is this difference however, between hirsuteness pure and simple and the hairy mole, namely that whereas the former may be regarded as caused by hypertrophy of the hair-glands: the latter is produced not only by hypertrophy of the hair-glands, but usually also of the pigment of the skin, and often also of the general substance of the skin, and in some instances of the subcutaneous connective tissue as well.

The treatment of undue hairiness may be effected in various ways. Of course *shaving* may be adopted as the mode of treatment. It is unquestionably a very excellent mode. It is the means selected, by universal custom, as the best for removing hair completely from

any part of the skin. It is an expeditious, as well as a thorough, way of removing hair. But the majority of cases, in which advice is sought as to undue hairiness, are the cases of women affected with hirsuteness of the face. Now women are extremely averse from using razors. For one thing they are afraid, and with good reason, of cutting themselves. For another they, one and all, firmly believe that repeated shaving will make the hair-growth very much stronger. But their chief reason is that they instinctively shrink from using so masculine an instrument. The fear of ridicule deters them. If the razor be used, it should be employed with the usual adjuncts of soap and hot water, and the shaving should be repeated once a day.

As to one of the generally entertained objections to shaving, namely that it tends to make the hair grow more strongly than before, this belief is perfectly groundless. It is the common experience of men who have grown, for example, a moustache at one period of their lives, and have then taken to shaving the upper lip daily for some few years, and have subsequently again allowed the moustache to grow, that the moustache has not become longer, or stiffer, or more thickly set, in consequence of having been shaved one or two thousand times. And yet it is a common prescription, when the hair-growth, say on the head, has become weak from any cause, to order the hair to be shaved off once, and then allowed to grow again, in the expectation of great benefit from this plan. The cause of this universal but erroneous belief is, doubtless, that judgment is generally pronounced on the



Fig. 7—Mrs. V—— M —— (after Duhring), *vide* p. 18.

result before a sufficient time has been allowed to elapse. When hair has been cut short, it at first grows much more rapidly than when it is near to its full length. It is also to be noted that hair, when short of its full length, has the appearance of being more vigorous than when it is fully long. Hence when, after shaving, the hair has begun to grow again, it seems for a time to be growing not only more rapidly, but also more thickly than before. But, if one waits until the new growth has attained its full length, then it becomes quite obvious that the shaving has produced no ultimate effect whatever.

As to the other two grounds of feminine dislike to shaving, namely the risk of cutting oneself, and the dislike of having in possession and daily use so well-known and typically unfeminine an implement as a razor, they may be obviated by the use of Bain's *rasoir mécanique* (Fig. 10). With this it is impossible to cut oneself. It shaves very cleanly and neatly, and it does not look much like a razor.

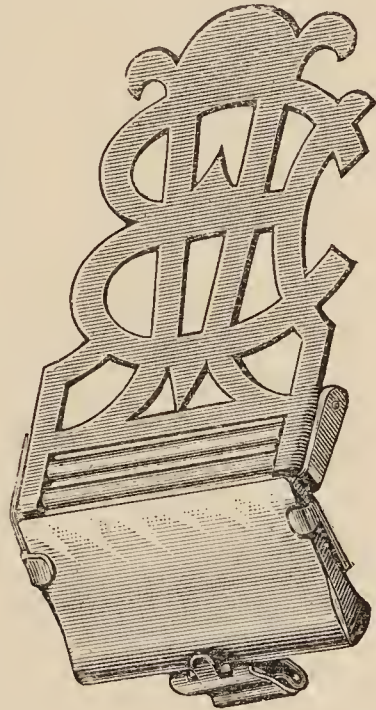


Fig. 10. Bain's "rasoir mécanique."

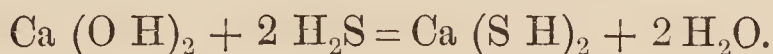
However some women object to it on the ground that it *is* a razor after all, as indeed it is.

It has been objected to shaving, that it leaves unremoved that portion of the hair which is contained in the substance of the skin; and that consequently,

in persons who have black or dark-brown hair, this portion of the hair shines through the skin, so that the shaven skin presents a dark-blue appearance. This is true in the case of certain men, namely those whose faces happen to present an exceptionally vigorous growth of black hair; but when the hair on the face of a woman has been recently shaved off it never leaves any such trace. In the case of women, as I have already explained, it is extremely rare for facial hirsuteness to be so pronounced as to simulate a veritable beard.

Depilation, or the use of "depilatories," although less efficacious than shaving, is in much greater favour with women as a remedy for hirsuteness. However, depilatories do not shave quite so closely as the razor. They are apt to leave here and there stumps of the hairs projecting from the skin. Such stumps are on the average about a thirty-second of an inch long, which, in the case of dark hair, is long enough to be perceptible. Furthermore depilatories do not leave the skin so absolutely intact as shaving with the razor. Nevertheless I have known many a woman contrive, very adroitly, to manage the regular application of depilatories; so as to remove neatly, every three or four days, all trace of hirsuteness from her face and arms, without any perceptible deterioration of the whiteness or smoothness of her skin. Then, there is one great advantage which depilatories possess, they have not the reputation of causing the hair to grow more strongly than before, on the surface to which they are applied.

One of the best of depilatories is *sulphuretted lime*, not however the sulphuretted lime (*Calx sulphurata*) of the British Pharmacopœia. The pharmacopœial product is procured by decomposing sulphate of calcium at a red heat by charcoal, and is an impure protosulphide of calcium, a substance which, when mixed with water, forms a white paste and has no action or scarcely any action on hair. The *depilatory sulphuretted lime* is the sulph-hydrate of calcium. This is best prepared by passing hydrosulphuric acid, or in other words sulphuretted hydrogen gas, through *milk* or *cream* of lime, which is merely the hydrate of calcium, i.e. slaked lime, diffused through water. The gas is passed through until the 'cream' of lime is saturated. By this process, sulph-hydrate of calcium, and water, are formed.* The decomposition that takes place is thus expressed,



A paste is thus produced which is of a dark blue-green colour. It is of a strong and nauseous odour, but is a very effective depilatory. It may if preferred, be scented, but it is scarcely possible by means of any perfume to disguise completely its odour. The paste may be used spread on a piece of thin paper, which is applied like a plaster, or the paste may be applied to

* 'Gas lime' is used on a very large scale for taking off the hairs from skins before they are tanned. Gas lime is the lime that has been used for purifying gas; it contains sulph-hydrate of calcium.

the skin with a small wooden or bone knife or even with the finger-tip. A fairly thick layer of the paste should be spread on the surface to be operated on. The paste should be left on for two, or even three, minutes according to the coarseness of the hairs that are to be removed, and should then be washed off with water. Very often the hairs wash off with the paste, leaving the surface that has been acted on perfectly bald, but if they are not thus washed off they can be readily scraped off with the edge of a blunt knife. After the paste has been washed off, a little 'cold cream' or zinc ointment may be smeared on the denuded skin, but as a rule that is not necessary.

Sulph-hydrate of calcium may also be prepared by a somewhat different process, namely by passing sulphuretted hydrogen gas over dry hydrate of calcium (slaked lime) in powder, until the powder is saturated. A powder of a pale, faintly-greenish, yellow tint, and smelling strongly of sulphuretted hydrogen, is thus procured. This powder, when mixed with water, forms a paste, which is of a bright yellowish green colour, very different from the dark greenish blue hue of the paste produced by passing sulphuretted hydrogen through 'cream of lime.' However, this bright yellowish green paste is quite as efficient a depilatory as the dark greenish blue paste already described, and should be used in precisely the same manner. The pale greenish yellow powder should be kept in a well stoppered bottle, and should only be mixed, namely a small quantity of it, with water immediately before use.

Another depilatory is the ‘Rusma’ of the Turks. This is a mixture of orpiment, which is the native yellow sulphide (tersulphide) of arsenic with quicklime.

The action of ‘Rusma’ on hair is due to the formation of sulpharsenite of calcium, a compound which is analogous to the already mentioned sulph-hydrate of calcium, arsenic being substituted for hydrogen. When ‘Rusma’ is mixed with water, and the mixture boiled for a short time, arsenite of calcium is precipitated, and a solution of the (crystalline) ter-basic sulpharsenite of calcium and the (amorphous) bi-basic sulpharsenite of calcium is formed. It is the solution, not the precipitate, that is the active ingredient of the paste. ‘Rusma’ is the least active of the depilatories here described.

Sulphide of Barium is a very excellent depilatory. It is best used diluted with a considerable proportion of oxide of zinc. The mixture may, if preferred, be tinted pink by the addition of a trace of carmine. The proportions are these,

Sulphide of Barium, in fine powder,	90 grains
Oxide of Zinc, in fine powder,	360 grains
Carmine, in fine powder,	1 grain
Mix thoroughly	

This powder, before it is used, requires to be mixed with water to form a thin paste. The paste is used just in the same manner as the sulphuretted lime paste.

Sulphide of Sodium is an efficient depilatory. It is however not quite so effective as the Sulphide of

Barium, moreover it has the disadvantage of affecting the skin much more considerably than is the case with Sulphide of Barium. Unless it be used with very great caution, it is apt to leave the skin more or less raw for three or four days. It should be largely diluted with prepared chalk. The proportions are,

Sulphide of Sodium, in fine powder,	90 grains
Prepared Chalk, in fine powder,	270 grains
Mix thoroughly	

For use, the powder must be made into a thin paste with water, and the paste should be applied in the same way as the sulphuretted lime paste.

Clipping the hair by means of scissors ‘curved on the flat’ is another means of removing superfluous hair, and is a very passable substitute for shaving. Like shaving, it requires some practice before it can be executed neatly. However, I have found that men, suffering from impetigo of the hair-covered portion of the face, and to whom I have, in consequence, recommended clipping in place of shaving, have been able, after some practice, to cut the beard with curved scissors almost as closely as if they had shaved. Some Jews, who are strict in the observance of their religion, which forbids them to shave, and who yet wish to avoid wearing a beard, make use of scissors instead of a razor. Specially shaped scissors, known as ‘Jews’ scissors, are sold by some cutlers. The use of scissors for the purpose of removing superfluous hair in the case of women, has the advantage of being free from

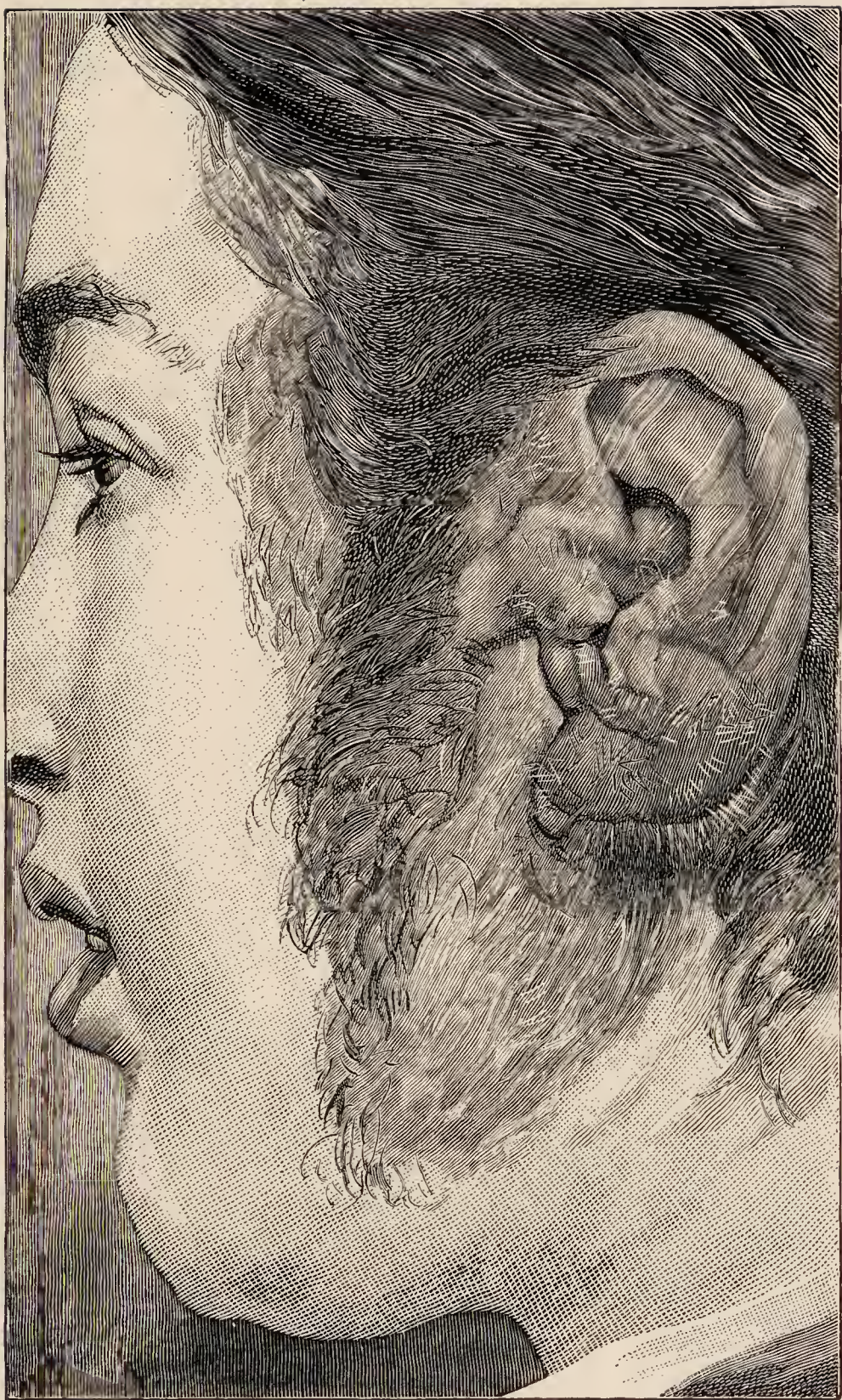


Fig. 8.—Hairy Mole, *vide* p. 26.

that strong aversion which women almost universally entertain to the use of a razor. But of course, it is not exempt from the prejudice arising from the popular belief that cutting the hair, by whatever means, must tend to make it grow more strongly; although this belief, as I have already explained, is without real foundation.

Pumice-stone has been used, from quite ancient times, for the purpose of removing superfluous hair. Even in the case of men the face may be kept quite smooth by this means, and with surprisingly little effect on the skin itself, provided that the scrubbing or grinding effect of the operation be not unduly prolonged on each occasion. It is true that, on the delicate skin at the corners of the mouth, the use of pumice-stone is apt to cause rawness; but, on the cheeks, the chin, and even on the upper lip if due care be taken, no such result is to be apprehended. The use of pumice-stone, for the purpose of keeping away superfluous hair, has survived to the present day; although it is now but very rarely used for this object. Its use, with an altogether different view, namely that of giving smoothness to the skin, more especially the skin of the hands, is however very common. Its employment, as a means of removing superfluous hairs, is never objected to by women. Whether the hair be kept down to the level of the skin by this or by any other means, the effect, as to producing any stronger growth of the hair, is in all cases the same, that is to say, there is no effect whatever. The actual cutting of the hair, whether by razor or scissors, is the thing

objected to, as likely to cause a stronger growth of hair.

In using pumice-stone, a comparatively small piece, having a perfectly flat surface of narrow oval shape, should be preferred. The to-and-fro rubbing movement should be exercised with a light hand, and should be directed mainly against the direction in which the hairs slant. The skin operated on should be kept somewhat stretched, and it is an advantage to oil the skin pretty freely before using the pumice to it. The skin operated on should be carefully felt from time to time with the finger-tip, to ascertain whether the hairs have been ground short enough, and no more rubbing should be used than is just necessary to effect this purpose. In operating near the lips, care should be taken not to let the pumice get too near to the edge of the lips. For use on the upper lip, a specially narrow surface of pumice is requisite.

Epilation, or pulling out the hairs with forceps or tweezers, is an extremely ancient, as well as a very popular modern method of removing superfluous hairs. There are, in the British Museum, many specimens of ancient Roman and Greek tweezers and, amongst the Egyptian antiquities there, a pair of forceps labelled "small tweezers for eradicating hair." The use of tweezers is the favourite method with women who are affected with senile hirsuteness, where the more conspicuous hairs on the chin or on the upper lip are comparatively few in number. This method is employed under the belief that hairs once fairly pulled out never grow again, accordingly the use of

tweezers is regarded as vastly superior to shaving or clipping, which are believed to make the hairs grow more strongly than before. As a matter of fact the reverse of this is what happens. Not only do hairs that have been plucked out grow again, but repeated plucking out has the effect of making the growth of hair much stronger, whereas shaving or clipping does not increase the strength of the growth. This being so, is epilation an advantageous mode of dealing with superfluous hair? The answer depends in some measure on the patient. I have known women who have pulled out hairs from the chin in the expectation that the hairs would never grow again; who, when they found the hairs re-appear, thought that this was only because they had not been pulled out properly and thoroughly, and so pulled them out again and again: and still finding the hairs re-appear, gave up the attempt in despair, only to find the hairs when left alone longer and coarser than before. I am here quoting the instances of women who, knowing of no other method than epilation, and finding it fail to have a permanent effect, and that it actually increased the growth of the hair, left it off in alarm to find themselves in a worse plight than before. Still, there is a limit to the added coarseness and length of hair arising from repeated epilation. If epilation be constantly persevered with, it is an effectual mode of keeping away superfluous hair. It has one advantage over any of the means that I have already described, and that is, that for the moment it takes away the hair, not only down to the level of the surface of the skin,

but even down to a level considerably below the surface of the skin. It therefore does not require to be repeated so often as any of the above-described methods, since some little time is required before the hair again begins to re-appear at the surface. It is not necessary to allow the hair to grow again very notably above the surface of the skin, before a sufficient hold on it can be obtained by the tweezers so as to ensure its evulsion. But still, although quite endurable the process

is more or less painful, and tedious too, for each hair must be operated on separately. So that this method is convenient only when the hairs to be dealt with are comparatively few in number. Fig. 11 represents a convenient form of tweezers for epilation.



Fig. 11.
Epilating
tweezers.

Electrolysis, or the destruction of the bottom of the hair-follicle by means of the galvanic current, differs from any of the methods above described, in that its effect is permanent instead of only temporary. By this means it is possible to eradicate, once and for all, any hairs that it may be desirable should be got rid of. The galvanic current is applied by passing it through a fine needle, which is pushed into the skin close by the side of the hair to be operated on. It is of course essential that the point of the

needle should be passed right down to the bottom of the hair follicle, or even somewhat deeper still, and that the direction of the needle should accurately correspond to the slanting direction taken by the hair in its

passage through the skin. Like epilation this method is tedious, and somewhat painful. Only one hair can be operated on at a time. Pricking the skin with a needle, through which a galvanic current is passing, causes distinctly more pain than a prick with a needle under ordinary circumstances. But the effect of epilation is only temporary, while that of electrolysis is permanent. The efficacy of this treatment depends on the destruction of that part of the hair follicle from which the hair is produced, namely the bottom of the follicle. This destruction is effected by means of electrolysis, but electrolysis, applied to living animal tissues, is merely a means of producing cauterization; accordingly a small tubular slough is produced, the axis of which is the needle-puncture. As a result of the production of this slough, a thread-like cicatrix is left, corresponding to the track of the destroyed hair-follicle. If, however, these minute operations be performed with ordinary care, the little cicatrices which are left do not cause any disfigurement, and are quite unnoticeable. The fact that thread-like cicatrices are produced, the direction of which is more or less perpendicular to the surface of the skin, does not lead to any retraction of such kind that the surfaces of the little cicatrices are pitted. On the contrary, they are perfectly smooth, and, on very close inspection, appear as if only the colour of the skin were slightly paler at the point where the cicatrix exists.

Other means have been attempted for destroying the bottom of the hair follicle, but none of them are so suitable as electrolysis. Thus, heated needles have

been thrust down the hair follicles, but the point of the needle is apt to get quenched before it can reach the bottom of the hair follicle ; so that the result of the operation is often simply the production of a superficial scar, much more notable than that produced by the electrolytic needle, while the bottom of the hair follicle is left undestroyed. If the needle be more highly heated, or if, at a more moderate heat, it be introduced a second or a third time into the same puncture, so that the bottom of the follicle is effectually destroyed, the production of scarring at the surface is still further augmented. The so-called galvano-cautery-needle, that is to say, a double needle which is heated by the passage through it of a galvanic current at high pressure, is open, although in a less degree, to the same objection ; inasmuch as the part of the needle, which is near the surface of the skin, is always less quenched than the part which is deeper. Moreover, the galvanic needle is always, necessarily, a much thicker implement than an ordinary fine needle such as is used for electrolysis, and is indeed far too clumsy in thickness for the purpose in view. It produces always a needlessly large destruction of tissue. There is another objection to the employment of heated needles, whether heated in the spirit-flame or by a high pressure galvanic current, and that is that their employment is apt to be followed by the development of a keloid growth on the base of the cicatrix. This is a result that I have often witnessed. Now electrolysis is free from this objection.

Another means is the use of needles moistened by



Fig. 9.—Emma P——, *vide* p. 27.

caustic fluids of different kinds, but these, in effect, produce a result similar to that of needles heated in the spirit-flame: the entering portion of the needle becomes so thoroughly wiped clear of the fluid, as it pierces the skin, that the effect of the caustic is almost wholly concentrated on the surface of the skin.

A further method is the introduction of a needle having three facets, and therefore three sharp edges, into the hair follicle. This is pushed into the skin along the side of the hair for some little distance; the hair is then pulled out by tweezers, and the needle pushed further in and rotated, with a view of breaking up the bottom of the hair follicle. This plan, excellent as it is in conception, demands, however, a precision in execution which, as will be seen further on, is very difficult of attainment, too difficult in short for the success of the plan.

The advantage of electrolysis over this last named method is that its effect is not restricted to the space occupied by the needle itself, but is, although within restricted limits, radiated around the needle: an important gain, in view of the extreme difficulty of hitting the exact direction of the hair follicle with the needle. Its advantage, over the other means that have been enumerated, is that the electrolytic needle is capable of generating a caustic effect, with perfect uniformity, from every portion of its surface including its point.

Efforts have been made to limit the caustic action of the needle to the neighbourhood of the point only; by covering the rest of the needle, or rather the rest

of that portion of it which enters the skin, with a coating which is a non-conductor of the galvanic current. This has been done by winding a very fine thread of silk round the portion of needle to be insulated and fixing the thread with a thin layer of varnish. This, however, leaves a slight shoulder where the insulated part begins, and this shoulder in some degree hampers the introduction of the needle into the skin. It is the high polish that a steel needle presents that enables it readily to penetrate the skin. A coating of silk, or even of varnish of any kind without the silk, renders it much more difficult to introduce into the skin. It is a fact familiar to everyone that a needle, which has lost its polish from becoming even slightly tarnished, is much more difficult to use than a perfectly bright needle. Although, therefore, the object sought to be gained by insulating a portion of the needle is a desirable one, it is better, on the whole, to forego the advantages of such insulation.

It will be found a considerable advantage if a small button be placed near the lower part of the handle, or holder, by which the needle is held; so that the interrupted galvanic current can be set going, at will, by the pressure of the forefinger on the button. In using a needle set in a holder thus arranged, the current should be set going only after the needle has been introduced, and should be interrupted before the needle is withdrawn.

Some operators prefer the use of a gold needle, because it is not liable to rust; but gold needles have

not sufficient stiffness to enable them to be used with adequate precision. It is far better to make use of ordinary steel sewing needles of suitable size, and these are cheap enough to be changed as often as may be wished. It has even been claimed for the gold needle, that its comparative want of stiffness and sharpness is an actual advantage, enabling it to slide down the hair follicle, as if a catheterization of the follicle occupied by its hair were possible. I do not suppose that such a feat has ever been accomplished.

Whatever kind of needle may be used, it must be fixed in a holder of the shape of a lead pencil, to the upper end of which the wire or metallic cord from the battery is attached, while in the lower end the needle is firmly fixed. A metallic wire running down the axis of the holder, like the lead in a lead pencil, connects the end of the battery-wire with the needle; the substance of the holder being made of some non-conducting material, so that the wire is insulated from the hand. Such a holder is represented in Fig. 12. During the "sitting," the patient must hold constantly, in one of his



Fig. 12. Electrolysis-needle.

hands, a moist sponge suitably connected (sponge electrode) with the other wire of the battery, so as to complete the galvanic circuit when the needle is used. The needle-holder should be connected with the negative pole, and the sponge with the positive pole of the battery. The most disagreeable part of the sensation, experienced by the patient, is at the moment of introducing, and the moment of withdrawing, the needle; or, if the holder used be furnished with the button I have recommended, at the moment of "making" and the moment of "breaking, contact." From a quarter to half a minute is the time usually required for the destruction of each hair-gland. Only a weak current is required—from half a dozen to a dozen elements of a "bichromate" carbon-zinc battery. The elements need only be of very small dimensions. The galvanic battery should be provided with the means of placing in the circuit as many elements, within the limits above named, or as few elements as may be found requisite.

It is a good plan, after the sponge electrode and the needle have been attached to the battery, but before commencing operations, to dip both sponge and needle, at a little distance from one another, in the same bowl of water; in order to ascertain, by the formation of minute bubbles of gas on the surface of the needle, that the battery is in order. The degree of slowness, or rapidity, with which bubbles form on the surface of the needle, will enable an estimate to be formed of the strength of the current. An accurate estimate as to how strong the current should be, that

is to say, how many elements should be included in the circuit, is best gained by commencing operations tentatively, namely on some part of the skin where a minute cicatrix is of no consequence, for example on the skin of the back. After a very little experience in epilation by electrolysis, the operator is enabled to judge very accurately, by such a test, as to whether the current is of the right strength. The object in view, of course, is to use as weak a current as is compatible with the successful destruction of the bottom of the hair follicle, so that a minimum of damage may be done to the skin.

For being operated on, the patient should be placed in as good a light as possible, and, in the case of fair haired patients, it is necessary to adjust the patient's face carefully to the exact position in which the light falls so as to render the hairs most distinctly visible. If the operator be short sighted, it will be necessary that he should lay aside his spectacles. If his sight be normal, it will be an advantage for him to wear slightly magnifying spectacles, so as to make him myopic to say 3 or 4 diopters. Having chosen the hair to be first operated upon, the operator, taking careful account of the direction in which the hair slants at its exit from the skin, and the degree of that slant, pushes the needle, steadily but expeditiously, into the skin, namely as close to the side of the hair as possible; and follows, as closely as he can, the direction of the hair in the skin, as judged of by the direction of the visible portion of the hair. A miniature frothing takes place around the needle as

the needle enters the skin ; and, directly after this, the skin immediately around the needle changes colour—becomes blanched. After the needle has been plunged in to the requisite depth, and has been allowed to remain in for the requisite time, from a quarter to half a minute, it is withdrawn, and thereupon an attempt is made with tweezers (Fig. 11) to extract the hair by means of very gentle traction indeed. If the little operation has been successful, the adhesion of the root of the hair to the bottom of the follicle is rendered so slight, that the hair is pulled out with very much greater ease than a normal hair ; so that the difference is quite obvious, not only to the operator, but also to the patient. If the hair does not yield to very slight traction, no further attempt should be made to pull it out, until the needle has first been re-introduced and a second attempt made to destroy the bottom of the hair follicle. It is not advisable to repeat the operation more than twice on the same hair until, after a few days, the minute spot has healed. The extent to which the skin has been damaged, by the cauterizing effect of a puncture with the electrolytic needle, can accurately be estimated by the degree of energy of the miniature frothing around the needle, by the successive changes in tint of the skin immediately around the puncture, and by the size of the areola thus formed. As may be supposed, practice alone enables the operator to minimize this damage ; namely by his acquiring dexterity in hitting, more or less accurately, the exact direction of the base of the follicle ; and by his successful destruction of

the base with a minimum of due strength of current, and with the briefest adequate insertion of the needle. The advantage of thus minimizing the damage to the skin is obvious ; since, in every case, it happens that many of the hairs to be operated on are spaced close to one another ; and it is consequently quite possible, by a careless use of the electrolytic needle, to leave marks almost as distinct as small chicken-pox marks.

As to the comparatively fine and short downy hairs, which are invariably found associated in great numbers with the much scantier long coarse hairs, in cases of senile feminine hirsuteness, it is better to leave them untouched by the needle. They are countless in number, are spaced closely together, and require almost the same amount of damage to be inflicted on the skin for the destruction of each of them, as in the case of each of the much scantier long and coarse hairs. The very prolonged time required for their removal, the damage done to the skin, and the comparatively small advantage to be gained, render the application of electrolysis to them unsuitable. Since there are gradations of all kinds, between the finest and shortest of these and the longest and coarsest of the larger hairs, the operator must use his own judgment as to where to draw the line in the matter of operating, or not on any individual hair. Still, when that judgment has been exercised as discreetly as possible, there will yet remain a certain faint degree of furriness, which first becomes noticeable only after the destruction of the

more conspicuous hairs, and which the patient in some cases desires to have removed. Although these finer and shorter hairs are inconspicuous as compared with the larger hairs, they are nevertheless somewhat gigantic as compared with the almost invisible normal down of the feminine face. Their removal can only be conveniently effected, either by regular shaving, or by the regular application of a depilatory.

The number of hairs that can be extracted at a sitting, and the time that the sitting should last, vary according to the patience and fortitude of the sitter, and the adroitness of the operator. In addition to the pain caused by pricking the skin repeatedly with a needle, there is also the unpleasant sensation experienced at each commencement and interruption of the passage of the current through the skin. These inconveniences cannot be conveniently obviated by the use of the æther-spray, and cannot be avoided by the application of cocaine, an anæsthetic which has no effect on the sound skin. The production of local anæsthesia by the subcutaneous injection of cocaine, or on the other hand the production of general anæsthesia by means of chloroform or æther, are, leaving out other drawbacks, inadmissible for such an occasion as this, by reason of their involving always some risk to the life of the patient. General anæsthesia by Nitrous oxide gas is too brief in its duration to be of avail. However, the pain of the process is quite within the limit of the toleration of most patients, even throughout a somewhat prolonged

sitting. As a rule, the patient can bear the destruction of from 25 to 50 hair glands at a sitting, and this number can be operated on within half-an-hour or three quarters of an hour. It is as well to cease operations well within the margin of the patient's tolerance of them, otherwise the fortitude of the patient is apt, sometimes, to break down suddenly from the cumulative effect of the incessant puncturing.

The sittings may be repeated, if need be, daily, for, at all events, four or five days in succession, after which period the patient may prefer to have a rest of a few days; and so on until all the hairs that require to be operated on have been dealt with. For the next two or three days after a sitting, the punctures present the appearance of minute red spots and, as to some of them, minute pustules, and the surface operated on is somewhat swollen and tender to the touch; but a few days later, provided that the operation has been carefully performed, no obvious trace of it remains. After the whole surface that requires to be dealt with has been operated on, an interval of 2 or 3 weeks should be allowed, in order to give time for any hairs, the follicles of which may not have been effectually destroyed, to grow up and shew themselves well above the skin. The proportion of the hairs operated on that reappear is, even when the operator is expert, admittedly very considerable. It has been estimated that on an average, from 30 to 50 per cent. of the little operations thus prove themselves to be failures.

Consequently a further sitting, or series of sittings, is requisite in order to deal with the failures ; and so on until none of the hairs that have been interfered with reappear. It must be confessed that the treatment of hirsuties by electrolysis, although on the whole a successful method, and certainly the only available treatment which is permanent in its effects, is nevertheless a somewhat tedious and unpleasant process.
